

MEETING LOG
Directorate for Engineering Sciences

PRODUCT: Adult Bath Tubs

SUBJECT: ASTM F15.03 Safety Standards for Bathtub and Shower Structures

LOCATION: Video Teleconference via Zoom

DATE: Wednesday May 26, 2021 10:30am-11:30am ET

ENTRY DATE: Wednesday June 2, 2021

LOG ENTRY SOURCE: Susan M. Bowley, Ph.D. Mechanical and Biomedical Engineer

COMMISSION ATTENDEES: Susan M. Bowley, Ph.D.

NON-COMMISSION ATTENDEES: John Leffler (TG Lead, FORCON International), Peter Townsend (Rimkus), C.J. Lagan (American Standard), Grant Davidson (Tile Council of North America, TCNA), Ben Elkin (MEA Forensic)

MEETING SUMMARY:

This ongoing meeting was held to revisit and discuss an overview of the withdrawn standard ASTM F462 Standard Consumer Safety Specification for Slip-Resistant Bathing Facilities and obstacles to ASTM providing a new standard to address slip/fall hazards in bath tubs.

The ASTM F462 standard was not based on human slip research and focused on use of only one slip resistance tester to determine coefficient of friction. The Task Group (TG) would like to focus development of a new standard that uses reference surfaces and human subject testing. To date TG members have not created any reference surfaces for testing. CPSC staff would like a new standard to address vulnerable populations, such as the elderly.

Peter Townsend indicated that the person who received the CPSC 2020 request for work is no longer with Rimkus and no documents could be found.

Discussion of CPSC new request for work on this project to be announced soon (in contract process now). Discussion concerning whether or not tasks in bid for new contract can be split up between different vendors or not, if vendors outside the US can participate, and if there are any conflicts with also serving on ASTM Committees. Intention of new contract request is to identify factors which lead to the slip/fall event and ranking of these factors, along with development of a new

standard for slip resistance. Discussion concerning including bath surfaces which have undergone a refinishing of the surface. Discussion concerning producing “reference surfaces” necessary for development of the new standard. CPSC staff requested that hot tub and spa surfaces also be addressed in the new standard development, since incident data also indicates slip/fall on these surfaces. CPSC Staff to follow-up on release of incident data for both bathing surfaces and hot tub/spas on an automatic and periodic schedule.

Mr. CJ Lagan will not be able to provide any “reference samples”. Mr. Grant Davidson determined that certain tiles can be milled to simulate mosaics for human testing.

Tasks for next steps from this meeting:

- Dr. Susan Bowley to follow-up on: check if bid for contract work can be split between multiple vendors, if vendors outside the US can participate, and if contract conflict of interest language can be shared with ASTM group. She will also follow up on release of incident data to ASTM for both bathing surfaces and hot tub/spas on an automatic and periodic schedule.
- Mr. John Leffler will check with ASTM to see if there are any conflicts of interest related to bidding on CPSC contract and serving on ASTM Committees.
- Mr. Ben Elkin will speak to co-worker Gunter Siegmund about his past study, as to whether more-detailed data is available on μ COF “impact” measurements when the bather steps over the tub wall into the tub. He has concerns about the relevance of Pendulum testing’s friction mechanisms to barefoot human frictional requirements; we discussed in the meeting that that may not be something we can do much about.
- Mr. Grant Davidson will check into whether there is any tile manufacturer industry interest in participating in creating “reference samples”.

Ongoing tasks for future meetings:

- Review of current research concerning slip/fall in bath tubs and hot tubs/spas.
- Review the CPSC staff bid process used previously (May 2020) to allow for notification to a larger audience (no bids were received) and provide any publicly available information to the TG
- Draft a human research study protocol
- Determine how NIST measures coefficient of friction
- Leverage other ASTM standards activity related to common slip/fall issues
- Plan for CPSC staff to place a new bid to gather human research data on slip/fall in bath tubs

- Plan for CPSC staff to provide incident data on an ongoing basis related to elderly slip/fall incidents in bath tubs, showers, and hot tubs/spas.
- TG members to evaluate internal hurdles to producing reference surfaces
- Plan for CPSC staff to evaluate having Commission provide a letter to highlight the importance of a new standard to address this issue, and sponsoring human subject data to support a new standard.

Future meetings are planned to occur on a monthly basis to provide additional discussion, and updates and feedback on progress for tasks noted above.